

## ABSTRACT

The invention relates to a method for the in vitro discrimination between systemic inflammatory non-infectious conditions and systemic inflammatory infectious conditions. The method comprises the following steps: a) sample RNA is isolated from a biological sample; b) the sample RNA and/or at least one DNA which represents a gene activity that is specific for distinguishing between SIRS and sepsis and/or a specific gene or gene fragment, is marked with a detectable marker; c) the sample RNA is brought in contact with the DNA in hybridization conditions; d) control RNA is brought in contact with at least one DNA in hybridization conditions, the DNA representing a gene or gene fragment that is specific for distinguishing between SIRS and sepsis; e) the marking signals of the hybridized sample RNA and control RNA are quantitatively recorded; and f) the quantitative data of the marking signals is compared in order to make a statement as to whether genes or gene fragments that are specific for distinguishing between SIRS and sepsis are expressed more prominently or less prominently in the sample than in the control RNA.